Remarks

Drawings

Respectfully, this rejection is traversed as the subject matter of claims 11 and 12 is already shown in the drawings at Figures 5-7. The subject matter of claim 11 is shown in Figure 5 (method of computing magnitude (gain) error) and Figure 7 (method of computing phase error). The subject matter of claim 12 is shown in Figure 6.

Independent claims 1, 7, 9, 13 and 14 have been amended to clarify the manner in which the detectors are coupled to the input and output of the amplifier. This amendment has not been made to overcome any art cited by the Examiner.

Claim Rejections – 35 USC § 103

Examiner rejected claims 1, 4, 5, 7, 11, 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over Iga (US 6,014,058) in view of Bar-David (US 2001/0054931). Respectfully, this rejection is traversed in view of the following remarks.

Newly cited Iga fails to teach the features of claim 1 alleged by the Examiner. Referring to Figure 1 of Iga, a first detector 4 is permanently connected to the input of amplifier 1 and a second detector 2 is permanently connected to the output of amplifier 1. Iga fails to teach:

"switch means which alternately couple a first and second detector means to the input and output of an amplifier"

as required by claim 1. The only switching which occurs in Iga is of the outputs of detectors 2, 4. Switching circuit 5 connects the output of detector 2 or the output of detector 4 to the integrator 3.

Bar-David also fails to teach this limitation of claim 1 since, in Bar-David, a first detector is connected to an input of an amplifier and a second detector is connected to an output of an amplifier in a fixed relationship.

Notwithstanding this distinction, claims 1, 7, 13 and 14 have been amended to even further clarify the manner in which the detectors are coupled to the input and

output of the amplifier. This amendment is based on the passage at page 8 line 29 – page 9 line 7 and shown in Figures 2 and 3.

Applicants described the deficiencies of Bar-David in the previous response. In addition to the deficiency noted above, Bar-David does not teach the limitation in claim 1 of "the amplifier output being normalized to the amplifier input signal level and time-aligned". Bar-David describes at ([0015], lines 1-4) how "levels of operating voltage supplied to the power amplifier are normalized to corresponding predetermined levels of RF output signals". Bar-David fails to describe normalizing an output of the amplifier to the amplifier input signal level. The purpose of the phase adjustment described in Bar-David at [0076] and shown in Figure 6 is to time-align the outputs of two amplifiers: the AUX amplifier 204 and the MAIN amplifier 253. It is not to time-align the output of an amplifier to the input of the amplifier as required by claim 1.

In view of the above comments it is clear that neither Iga nor Bar-David, either when taken alone or in combination, have all of the limitations of claim 1 and consequently even if one of ordinary skill were motivated to combine these references (which is denied) they would not arrive at a comparator as recited in claim 1.

Claims 7, 11, 13 and 14 contain similar limitations as claim 1 and are considered allowable for the same reasons.

Regarding claim 11, Iga and Bar-David both fail to teach that "the means of detection are alternated between the amplifier input and output" as recited in claim 11. In Iga, detector 4 is permanently connected to the input of amplifier 1 and detector 2 is permanently connected to the output of amplifier 1. The means of detection is not alternated between the amplifier input and output. In Bar-David a first detector is connected to an input of an amplifier and a second detector is connected to an output of an amplifier in a fixed relationship.

Claims 4, 5 and 7 are considered allowable at least by virtue of being dependent on an allowable base claim (claim 1).

Examiner's rejection of remaining dependent claims under §103 is rendered moot in view of the remarks presented above in support of base claims 1, 7 and 11.

Claim Rejections – 35 USC § 112

Referring to the numbered paragraphs:

6. The difference means can be implemented in the analog domain (e.g. as a difference amplifier) or in the digital domain, as described at page 3 lines 27-30. Claim 4 simply claims the embodiment of the invention where the difference means is implemented in the digital domain. There is no ambiguity in this point.

7. Claims 2, 3 have been amended to recite the "first detector" and "second detector" first introduced in claim 1 and to introduce an output of each detector.

8. Claim 4 has been amended to recite the "first detector" and "second detector" first introduced in claim 1 and to introduce an output of each detector.

9. Claims 1, 7, 9 and 14 have been amended to recite "said error value".

10. Claims 1, 7, 9, 13 and 14 have been amended to clarify that the output of the amplifier has been normalized and time aligned to the input (i.e. these processes occur outside of the apparatus being claimed.) It is noted that Examiner appears to find this wording acceptable in claim 11.

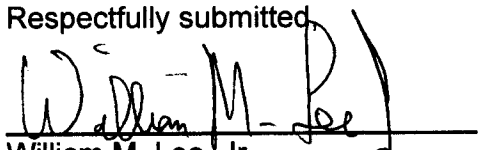
Allowable subject matter

Examiner's indication of allowable subject matter is appreciated. Claim 9 has been amended to address the 35 U.S.C. § 112 rejections.

For the foregoing reasons, Applicants respectfully submit that the claims pending in this application are in condition for allowance. Early issuance of a Notice of Allowance is solicited.

April 26, 2007

Respectfully submitted,



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